

sits at the centre of this star, like a small, brown, papery, puff-ball, with a tiny, conical, starshaped opening at the top. (I would be grateful to receive collections of any fungi from members who may find them.)

Greta B. Cone.

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SEAWEED RESEARCH.

On April 19th at the invitation of the Wellington Branch of the Royal Society of New Zealand, members heard a lecture by the Swedish algologist Dr. Tore Levring. Dr. Levring, who is Assistant Professor at the University of Gothenburg, is one of the most active and well known seaweed researchers in the world. His interest and ability in physiology were shown in his lecture on "Submarine Daylight and Photosynthesis in Marine Algae" but he is equally concerned with the systematic and geographical problems in this group. A year's collecting trip to Australia and New Zealand, with a grant from the Swedish Government, will enable him to amass much material to compare with the classical Australasian specimens in Sweden, and with other southern circum-polar specimens that he has already worked on. In New Zealand he and Mrs. Levring collected about Russell, Auckland, Wellington, Lyttelton and Dunedin, and he lectured to students in the four main centres.

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TROPICAL MANGROVE VEGETATION.

(Notes of Mr. McCann's Talk on March 15th.)

The word MANGROVE tends to embrace all plants growing in swampy muddy flats between high and low tides. Here plants have adapted themselves in various ways to an existence in saline slush, poor in oxygen. The mangroves form a biological unit of ecological and physiological interest.

The mangrove formation includes plants belonging to widely different families, although in New Zealand we tend to think only of the one species that dominates our mangrove swamps. Some of these families are:- Rhizophoraceae, the so-called true mangroves; Lythraceae; Combretaceae; Verbenaceae; Meliaceae; Myrsinaceae; Rubiaceae; Acanthaceae; Leguminaceae; Gramineae; Cyperaceae; Compositae; Salvadoraceae; Chenopodiaceae; Euphorbiaceae; Convolvulaceae; Asclepiadaceae; Ficoidae; Palmae; Apocynaceae. Some of these are rather members of the border-line flora between the mangrove and the terrestrial floras.

A brief description was given of a typical Indian mangrove swamp of the Bombay Presidency. Here on the seaward side is a protecting screen of trees or shrubs of Avicennia alba. Behind this is a mixture of woody plants of some nine genera, including Avicennia officinalis, Rhizophora, and a Derris related to that from which derris dust is obtained. On slightly higher ground are grasses and sedges and inshore still other plants, with further additions if there are patches where more sand is mixed with the mud.

The Rhizophoraceae are represented by five species in Bombay. While the fruit is still on the tree, an enormous radicle develops, sometimes attaining a length of two feet in R. mucronata, and half that length in Cerriops and Kandelia. Carallia has a red fleshy fruit, distributed by birds. The early development of the radicle is believed to be a means of anchoring the seedling in the mud, as it drops javelin-wise into the slush. In Rhizophora the entire fruit often falls, but if the seedling is without pericarp it floats vertically, owing to the enlargement of the distal portion of the radicle which weighs down the point and allows it to jab into the mud as the tide ebbs. Most of the Rhizophoraceae produce stilt roots. In R. mucronata the base looks like a giant spider with multitudinous legs. Pneumatophores (breathing roots) are not produced, but numerous large lenticels appear on exposed roots.